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ABSTRACT

This booklet describes for elementary students the many contributions of people, traveling many places, over many years to bring the tomato to Philadelphia. The booklet includes the following: (1) "Introduction to the Tomato"; (2) "Where Does the Tomato Come From?"; (3) "The Spanish Tomato"; (4) "The Philadelphia Tomato"; (5) "Growing Tomato Seeds"; (6) "The Ethnic Tomato"; (7) "The Tomato Business"; and (8) "The Tomato Today." A Map of the United States, a glossary, follow-up activities and a six-item bibliography complete this student packet. (EH)

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PHILADELPHIA

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AND THE TOMATO

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CONTRIBUTIONS

Dear Students:

All through history, people have contributed ideas, talent, skill and hard work to making life better for everyone. These contributors were from many countries, spoke different languages, were both men and women, and sometimes, even children. Many never received wealth or fame for their efforts, but our lives would be lessened if it were not for their contributions.

The words below symbolize the characteristics of a person who makes contributions to society. If there are any words you don't know the meaning of, please look them up in a dictionary. Write your own name and pick out words that you would like to symbolize you or your goals.

Concern
Optimistic
Noble
Talented
Responsible
Idealistic
Brotherly
Unselfish
Thankful
Imaginative
Observant
Neat
Skillful

As you will see throughout this book, it took many people, traveling many places, over many years to bring the tomato to Philadelphia.

Written by: Andrew F. Smith and Tatiana Kling
Additional material and design by: Susan Longenberger

ESSIA, Chapter 1
Education in World Affairs Project
The School District of Philadelphia and The World Affairs Council of Philadelphia

INTRODUCTION TO THE TOMATO

When we think of tomatoes, we usually think of the large tomatoes we find in our grocery stores and markets. However, all tomatoes do not look like this. Some are large; some are small; some are round while others are long. There are red tomatoes, orange tomatoes, yellow tomatoes and tomatoes with several different colors on them. Have you ever seen a purple tomato or a translucent tomato ? Very few people have, but they do exist.

We eat tomatoes or tomato products almost every day of our lives. We eat tomato catsup on hot dogs or hamburgers. We drink cold tomato juice for breakfast and hot tomato soup for lunch. We put sliced tomatoes on sandwiches and in our salads. We put tomato sauce on pizza and spaghetti. Almost all grocery stores or supermarkets sell canned or fresh tomatoes. Americans eat more tomatoes than any other fruit or vegetable except for potatoes. Tomatoes are grown commercially in every state except Alaska. It's hard to imagine living in a world that didn't have tomatoes.

Tomatoes have not always been a part of our diet. Only during the last 100 years have Americans really begun to eat tomatoes. In 1682, when William Penn arrived in Philadelphia, there were no tomatoes in Pennsylvania. Most people who came to America thought that tomatoes were poisonous and refused to eat them.

What do we remember?

1. Name different ways the tomato is eaten?

_____

_____

_____

_____

2. Was the tomato always in Philadelphia?

_____

_____

3. Why did people refuse to eat the tomato years ago?

_____

_____

4. What does "translucent" mean? Look up this word in the glossary and try to describe what a translucent tomato might look like.

_____

_____

_____

_____

WHERE DOES THE TOMATO COME FROM ?

The story of how the tomato arrived in Philadelphia starts thousands of miles away and hundreds of years ago. Botanists -- scientists who study plants -- think that the tomato first grew in the Andes Mountains of Peru in South America.

Look at the map of the World and find the Western Hemisphere.

Locate South America.
Find Peru and color it your favorite color.
Use a symbol or another color to indicate the Andes Mountains.

The wild Peruvian tomato—

The first tomatoes did not look at all the way tomatoes do today. They were very small, probably not bigger than today's cherry tomatoes. They were many different colors, not just red. They probably tasted very bitter, and the outside skin was very thick.

A group of people called the Inca lived in Peru many years before Columbus arrived in the New World. The Inca lived in the highlands of the Andes Mountains. In the rugged Andes Mountains they dug terraces to grow food and aqueducts to carry water. They grew corn, squash, beans, potatoes and many other food products. Botanists believe that these foods also grew first in Peru. Although tomatoes grew wild in Peru, the Inca did not grow them on their terrace farms. In fact, the Inca may not have even eaten tomatoes. Historians -- people who study history -- have not found any records about the Inca eating tomatoes.

No one knows why the Inca did not eat tomatoes. Perhaps they did not like the bitter taste of the original tomatoes, or they simply liked other foods. New foods are added to diets slowly because people have customs which are difficult to break.

What foods do you like best? Have you ever been offered some food that for one reason or another you didn't want to eat? Why did you refuse to eat it?

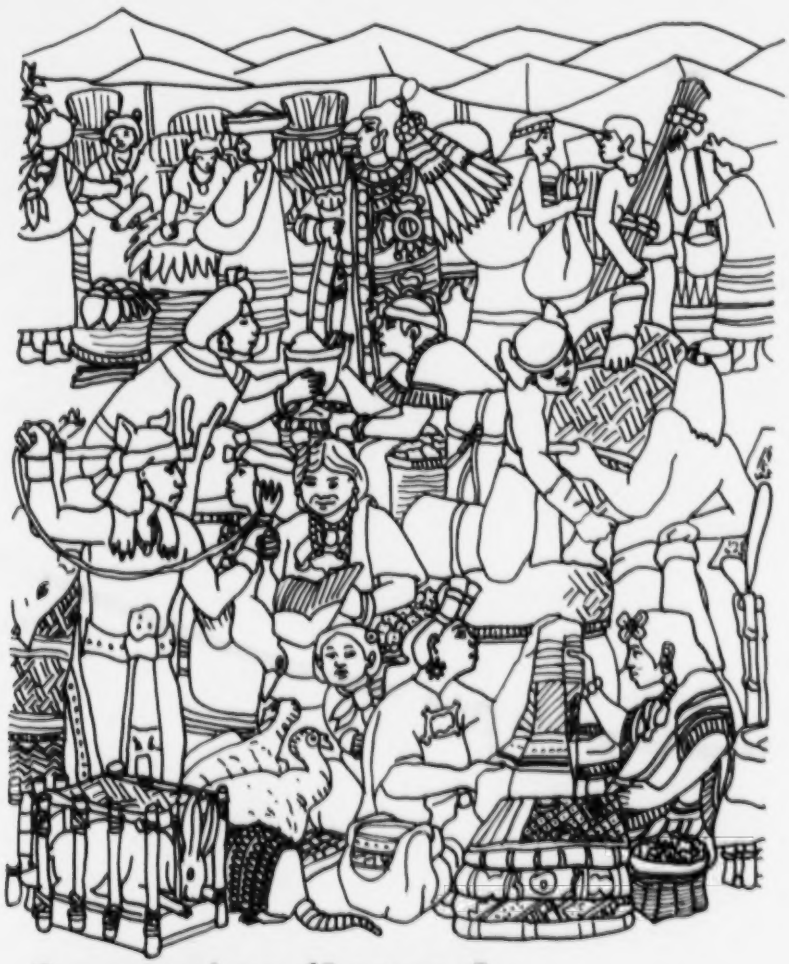
An Aqueduct

The Inca cut terraces into the sides of mountains to prevent the good soil from washing away and to make irrigation easier.

Somehow the tomato went from Peru to Central America. No one knows for sure how it happened. Perhaps birds ate tomato seeds, then flew to Central America and dropped them. Perhaps people traveling through the jungle from South America to North America brought seeds with them. In any case, the Indians of Central America began to grow the tomato. In Central America, the tomato changed. It became larger and more lumpy.

A group of people called the Aztecs lived in what is today Mexico. The Aztecs named the plant xtomatl, pronounced *he - toe - ma - til*, which meant a " large fat fruit . " Our English word, tomato, comes from the Aztec word. Can you find the part of the word xtomatl which looks like tomato? Underline it. It would be almost 300 years before the tomato came to Philadelphia. Why did it take so long?

Look at the world map, and locate the Western Hemisphere. Find Peru, Central America and Mexico. Draw a line from Peru to Mexico.



Luxuries flowed *to the great market at Tlatelolco, center of commerce for the empire. Cortés reported a crowd of 60,000 bartering for goods.*

THE SPANISH TOMATO

In 1492, Christopher Columbus arrived in the Caribbean. He found many foods eaten by the native Americans, such as corn, beans, squash, and potatoes. He also found tobacco, which was smoked by the Caribe Indians. They lived in the islands in the Caribbean. Since each of these plants only grew in the New World, none of the Europeans had seen or tasted them before. Columbus did not find any tomatoes in the Caribbean.

Locate the Caribbean Islands on the World Map.

In 1519, Hernan Cortes, a Spanish soldier, conquered Mexico. The Aztecs gave him some tomatoes. The Spaniards shipped many new food products to Europe, just as they shipped many European food products to their colonies in the Americas. The Spaniards shipped the tomato to Spain, and probably to Italy, sometime in the late sixteenth century. During the next 200 years, the tomato was brought into other countries of Europe.

Locate and label Spain and Italy on the world map. Identify the continent of Europe and color it. Draw a line from Mexico to Europe.

At the same time that the Spanish imported the tomato into Europe, they also sent the tomato across the Pacific Ocean to the Philippine Islands. The Philippines belonged to Spain. From the Philippines, the tomatoes were taken to Asia. The tomato was spreading everywhere except in what was to become the United States.

Circle the Philippines and label the continent of Asia.

The first Europeans who explored and later settled in what is today the United States did not find any tomato plants. It is unlikely that the British, French, and Germans who settled in America ate tomatoes in Europe or in America. No one knows why these Europeans thought that the tomato was poisonous, but several stories have emerged to explain it. The tomato plant did not grow well in northern Europe because of the cold temperatures. The tomatoes that northern Europeans ate may not have been ripe.

In any case, there were no tomatoes in northern America, and early settlers probably did not bring tomatoes with them when they migrated to the New World. How then did the tomato arrive in America? What are your ideas on how the tomato finally came to Philadelphia?

Answer the following questions with <u>true</u> or <u>false.</u>

1. _____ When Columbus arrived in the Caribbean he found a variety of foods, including the tomato.

2. _____ The Aztecs gave Cortes some tomatoes.

3. _____ The Spanish sent the tomato to Europe and to the Philippines.

4. _____ The Europeans had no trouble growing the tomato.

THE PHILADELPHIA TOMATO

No one knows for sure how the tomato finally got to Philadelphia. Some historians believe that the Spanish, who lived in what is today Florida, Texas and California brought tomatoes with them from Mexico. Some historians believe that American traders traveled to the Caribbean, or Central America, and brought them into the northern British colonies. Other historians believe black slaves brought tomatoes into the southern colonies, and then the tomato moved slowly northward toward Philadelphia. Still others say that the French in New Orleans introduced the tomato into the Mississippi River Valley, and hence into the United States from the West. Perhaps tomatoes entered into the United States from each of these sources. We know that tomatoes began to be grown in the southern colonies during the mid-eighteenth century, and they finally arrived in Philadelphia a little before 1800.

Draw a dotted - line on your world map that shows your best guess of how the tomato came to the New World from Europe. Don't forget to make the map key and show the symbol of a dotted - line as a possible route of the tomato to America.

Name three different ways that historians feel that the tomato was brought to the New World.

1. _____

_____

2. _____

_____

3. _____

_____

Although we don't know for sure how the tomato got to Philadelphia, we know that many Philadelphians helped make the tomato an American food.

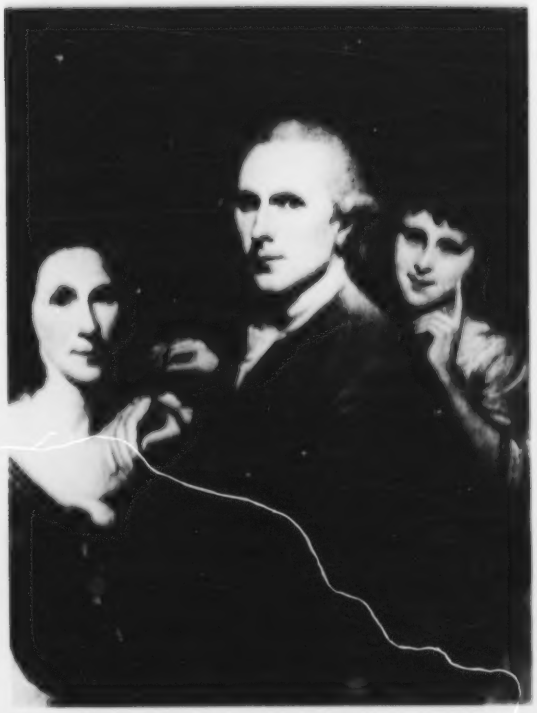
Locate Philadelphia on your world map and put a dot at its location. Label your dot Philadelphia. Include a dot symbol in your map key to represent cities.

View of Several Public Buildings, in Philadelphia. 1790

John Bartram, a scientist, was born and raised in Philadelphia. He, like William Penn, was a Quaker. He was the most important botanist in colonial America. He traveled in much of North America during the late eighteenth century learning about the kinds of plants growing there. He found tomatoes on a trip to St. Augustine, Florida, in 1765.

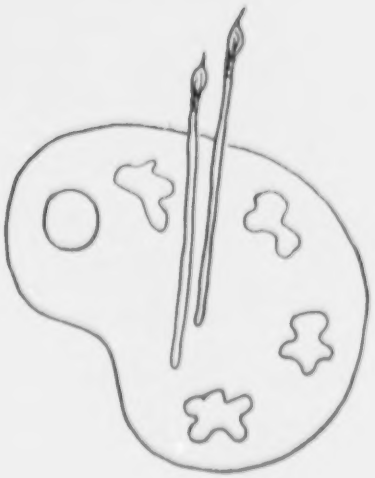
John Bartram established a botanical garden in Philadelphia in 1728. It was probably the first botanical garden in the American Colonies. We don't know for sure whether or not he brought back tomato seeds to plant in his garden.

Rubens Peale and the First Geranium. 1801



Charles Willson Peale's self portrait with his wife and daughter

Rubens Peale's father was Charles Willson Peale. He established a natural history museum in Philadelphia. He later helped to start the Pennsylvania Academy of the Fine Arts. Someone sent tomato seeds to Mr. Peale, and he gave the seeds to his son. In 1794, Rubens planted tomato seeds in his garden at Third and Lombard Streets. At the age of eleven, Rubens became the first to plant tomatoes in the northern United States.



James Mease was a doctor. He was also a native of Philadelphia. James Mease edited a five volume encyclopedia which was published in 1804. In his encyclopedia, he wrote that tomatoes were growing in many parts of Pennsylvania. Only a few years before, hardly anyone even knew about them. A few years later, he published the first recipe for tomato catsup.

Robley Dunglison was born in Great Britain, but he moved to the United States and became the personal physician to Thomas Jefferson. After Jefferson's death, Robley Dunglison moved to Philadelphia and taught at the Jefferson Medical School. At this time people still said that the tomato was poisonous. Dr. Dunglison not only said that the tomato was not poisonous, but that it was very healthy to eat and cured many diseases. His comments were published throughout the United States and soon everyone ate tomatoes.

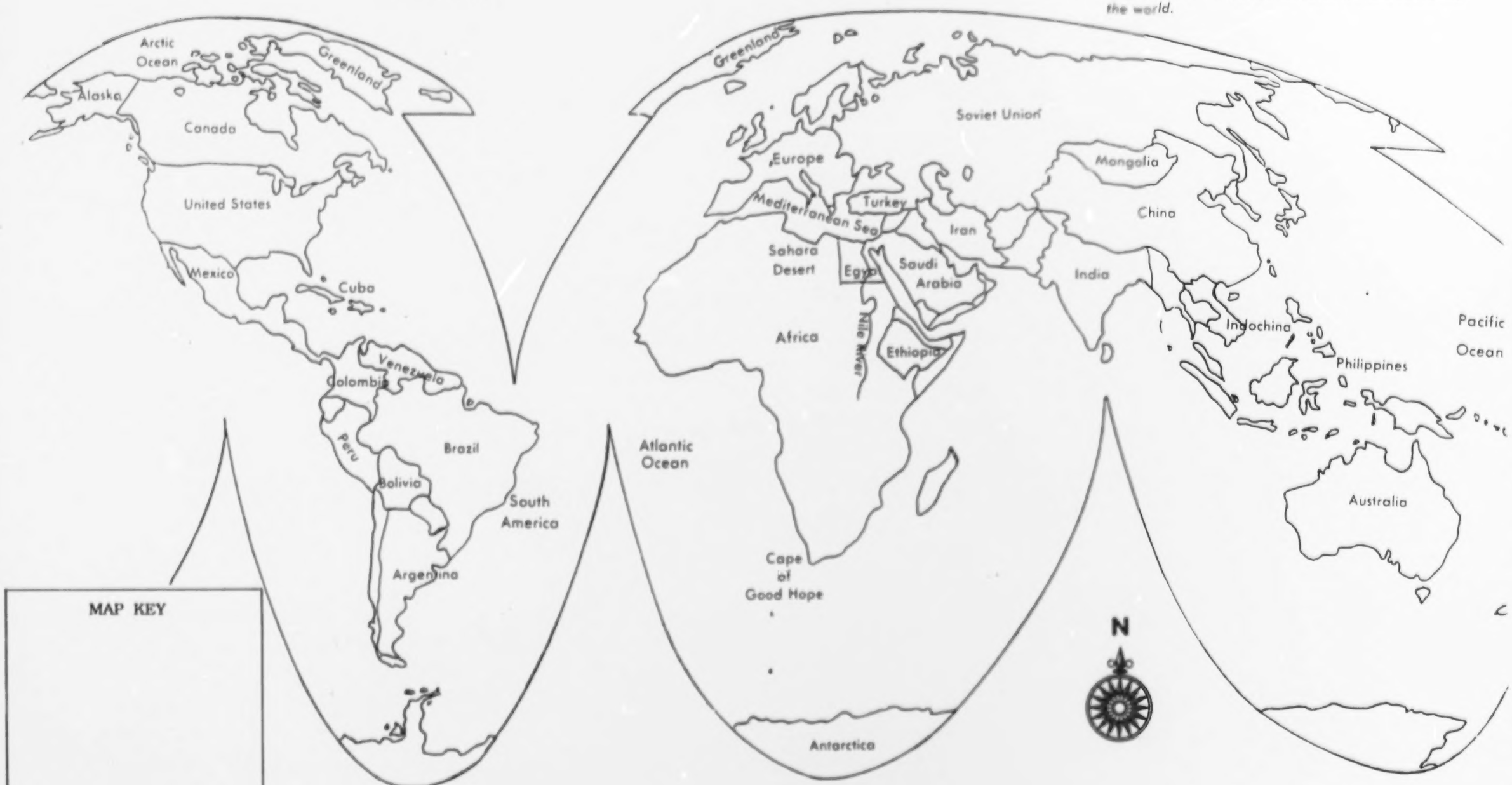
Label Great Britain on your world map.
Label the Caribbean Sea. Color water areas light blue on your map and use the color symbol in your key.

Many unknown people also helped to bring the tomato to Philadelphia. For instance, in 1790, black slaves revolted against the French in Haiti. The revolution was led by Toussaint L'Ouverture. After many years of revolution, black slaves defeated the French armies and Haiti became the first independent nation in the Caribbean. Many French Creoles who lived in Haiti came to the United States. Many came to live in New Orleans and Philadelphia. Some Creoles started restaurants in America. It is believed that these restaurants may have served tomatoes.

Toussaint L'Ouverture

The World

This kind of world map is called an orange peel map. It is hard to draw all parts of something that is round like the world.



GROWING TOMATO SEEDS

Even though tomatoes grew in Philadelphia, it took a long time for farmers to plant and sell them. There were no railroads and other rapid transportation systems. Farmers had to send what they grew in horse drawn wagons over very bad dirt roads. Tomatoes were very fragile. It was almost impossible to ship tomatoes any great distance without the tomato being ruined.

There was also the difficulty of storing tomatoes. There were no refrigerators in America until about 100 years ago. The process for canning tomatoes did not become widespread until after the Civil War. If farmers grew tomatoes, they had to eat them raw or preserve tomatoes in glass bottles. Some of the earliest recipes we have in cookbooks were for preserving tomatoes for later use.

Since farmers did not sell tomatoes to people living far away from Philadelphia, another business was started. This business was selling tomato seeds. One of the first persons in America to sell tomato seeds was Bernard Mc Mahon. He was born in Ireland and moved to Philadelphia after the American Revolution. He soon started growing seeds to sell to farmers. He published a seed catalog to give to farmers so that they would buy his seeds. Listed in his first seed catalog was "tomato or love apple". Mc Mahon also wrote an almanac which was used throughout America before the Civil War. The almanac covered a variety of topics of interest to people living on a farm. These topics included farming, cooking and weather forecasts for the future year.

Bernard McMahon opened up a store which sold seeds. He began writing to other people throughout the United States and Europe. He bought and sold seeds. He wrote regularly to Thomas Jefferson, who was the third President of the United States. Thomas Jefferson was very interested in plants. He grew tomatoes on his farm in Virginia.

David and Cuthbert Landreth were also immigrants from Great Britain. They settled in Philadelphia in 1784 and began to sell fruits and vegetables from a garden stall by the side of the old court house. They established a small farm and began selling fruit and vegetable seeds to local farmers. Later, they established their farm in Bristol near Philadelphia, and began selling seeds throughout America. They sold tomato seeds beginning in 1820. The Landreth Seed Company is still selling seeds today. The Landreth Seed Company moved from Philadelphia, and now is located in Baltimore, Maryland.

Locate and label Maryland with MD on the map of the United States.
Put a dot approximately where you would find Baltimore and label it.

Another All-America favorite—the tomato salad.

THE ETHNIC TOMATO

Many different ethnic groups have come to Philadelphia over the past 300 years. Many of the foods that people eat today came from these different groups. For instance, Quakers, Germans, British, Irish, Blacks and many people of Hispanic heritage have all moved to Philadelphia. Each group has also left their marks on the food we eat today.

Take gumbo soup as an example. The word gumbo comes from West Africa. It originally meant okra which is a food that began in Africa. Africans brought okra to Brazil, then into the Caribbean, and finally into North America. It was a great success in New Orleans where people added file powder. File powder was made of sassafras leaves. It was a spice made by the Indians who lived around New Orleans. Many people also liked to add tomatoes to the gumbo soup. Before the Civil War, slaves did most of the cooking on large farms in the South. Black slaves brought the recipe for gumbo soup into the the United States. Many slaves who escaped moved to Philadelphia. They brought gumbo with them to Philadelphia. It was very good and everyone liked it.

Can you think of other foods that other ethnic groups may have brought to Philadelphia ?

_____

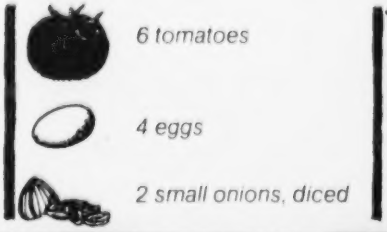
_____

_____

_____

Maybe you and your class can share or cook an ethnic recipe using tomatoes?

Scrambled Eggs with Tomato



6 tomatoes

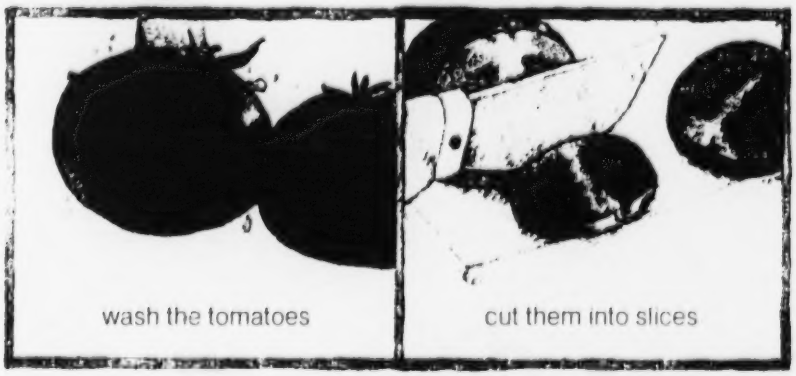
4 eggs

2 small onions, diced

1 chili pepper, chopped

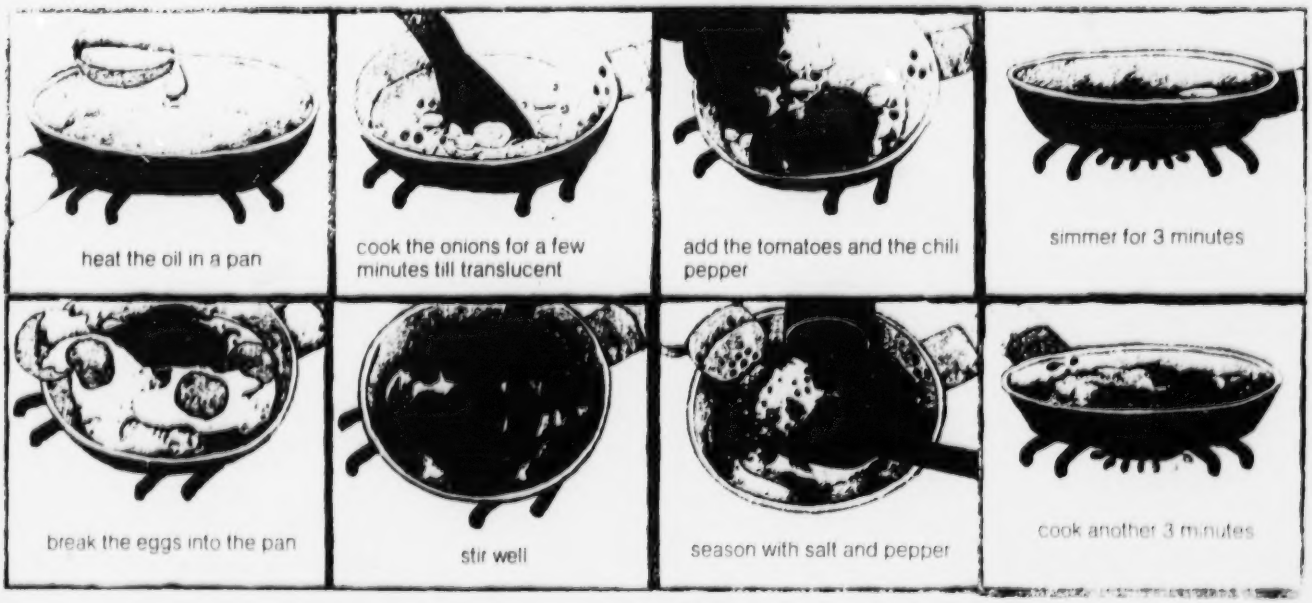
salt and pepper

oil



wash the tomatoes

cut them into slices



heat the oil in a pan

cook the onions for a few minutes till translucent

add the tomatoes and the chili pepper

simmer for 3 minutes

break the eggs into the pan

stir well

season with salt and pepper

cook another 3 minutes

THE TOMATO BUSINESS

Different fruits and vegetables are picked during different times of the year. Peas are picked in the spring. Tomatoes are picked during the summer. Apples are picked during the autumn. People could eat these foods during the time in which they were ripe, but they also wanted to eat these foods at other times. People always looked for ways to save or preserve food for later use. One way was to can the food.

In 1876, the Centennial Fair, which celebrated the 100th birthday of our nation, was held in Philadelphia. Thousands of people came to Philadelphia from all over the country to celebrate the signing of the Declaration of Independence which had occurred in 1776. At the fair, Henry John Heinz bottled and sold catsup. Catsup was an instant success. After people tasted the Heinz catsup, many people did not want to spend days making their own. Now, they could simply go out and buy some in the store.

Joseph Campbell began canning jams and preserves in 1867. Five years later he opened a large factory in Camden, New Jersey. The company slowly expanded during the next twenty years. In 1892, John Dorrance, a chemist, was hired at the low cost of $7.50 per week. He developed a way to make concentrated tomato soup. At that time soup was sold for about 35 cents per can. Campbell's was able to sell their concentrated tomato soup at 10 cents per can.

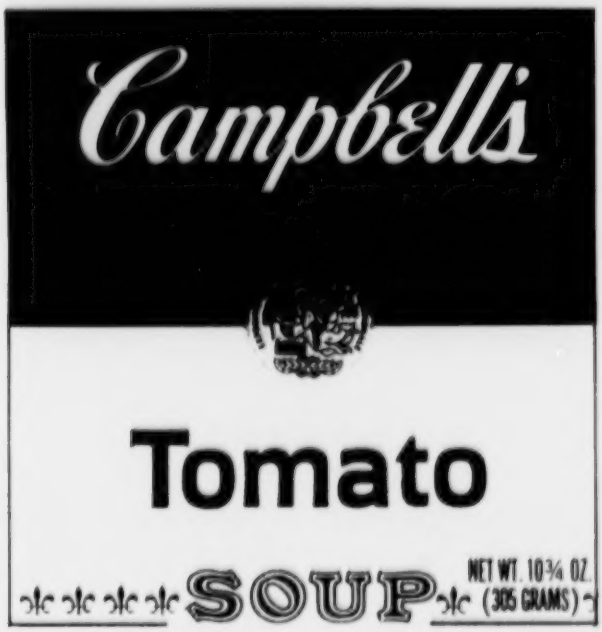
Locate New Jersey and Pennsylvania on the United States map.

Label New Jersey using NJ.

Label Pennsylvania using PA.

Locate Philadelphia and Camden using dots and label.

There were also major changes in how tomato soup was manufactured. Machines soon replaced the people who canned tomatoes during the Civil War. Campbell's Soup plant in Camden produced over ten million cans of soup per day in 1935. To let people know about their soup, Campbell's Soup Company began to advertise. For many years they were the largest advertiser in magazines. Grocery stores bought the cans and Campbell's Soup Company was a great success. So was John Dorrance's career. He became the general manager in 1910, and president of the company in 1914. When he died, he was worth more than 200 million dollars.



THE TOMATO TODAY

Today we can buy fresh tomatoes in our stores throughout the year. Many foods that we eat today are made with tomatoes. Even though we are eating many foods made with tomatoes, most commercial plants around Philadelphia have closed down. Few area farms produce many tomatoes today. Why? The reason is simple. It is cheaper to grow tomatoes in other places in the United States, and in the world. Tomatoes are then shipped from other places to Philadelphia. Almost half of the tomatoes we now eat are grown outside of the United States, particularly in Mexico. Most canning plants have moved to be close to where tomatoes are now grown.

There are some disadvantages with growing tomatoes in other places and shipping them to Philadelphia. Tomatoes are often picked from their vines before they are ripe. It takes weeks to ship them from far away places, such as Mexico. They often lose their flavor before they arrive in Philadelphia grocery stores. Some people think that tomatoes bought in the stores in winter taste like cardboard. Other people don't care. They enjoy having tomatoes available in our stores throughout the entire year, not just in the summer.

I'm sure you have a favorite way to eat tomatoes. Maybe it's a special recipe or just a sliced tomato added to a sandwich to make it extra good. In the space below, write down your tasty tomato treat. Don't forget to write the ingredients you need and how to make your super tomato meal.

Ingredients:

_____

_____

_____

_____

Steps to Complete:

_____

_____

_____

_____

_____

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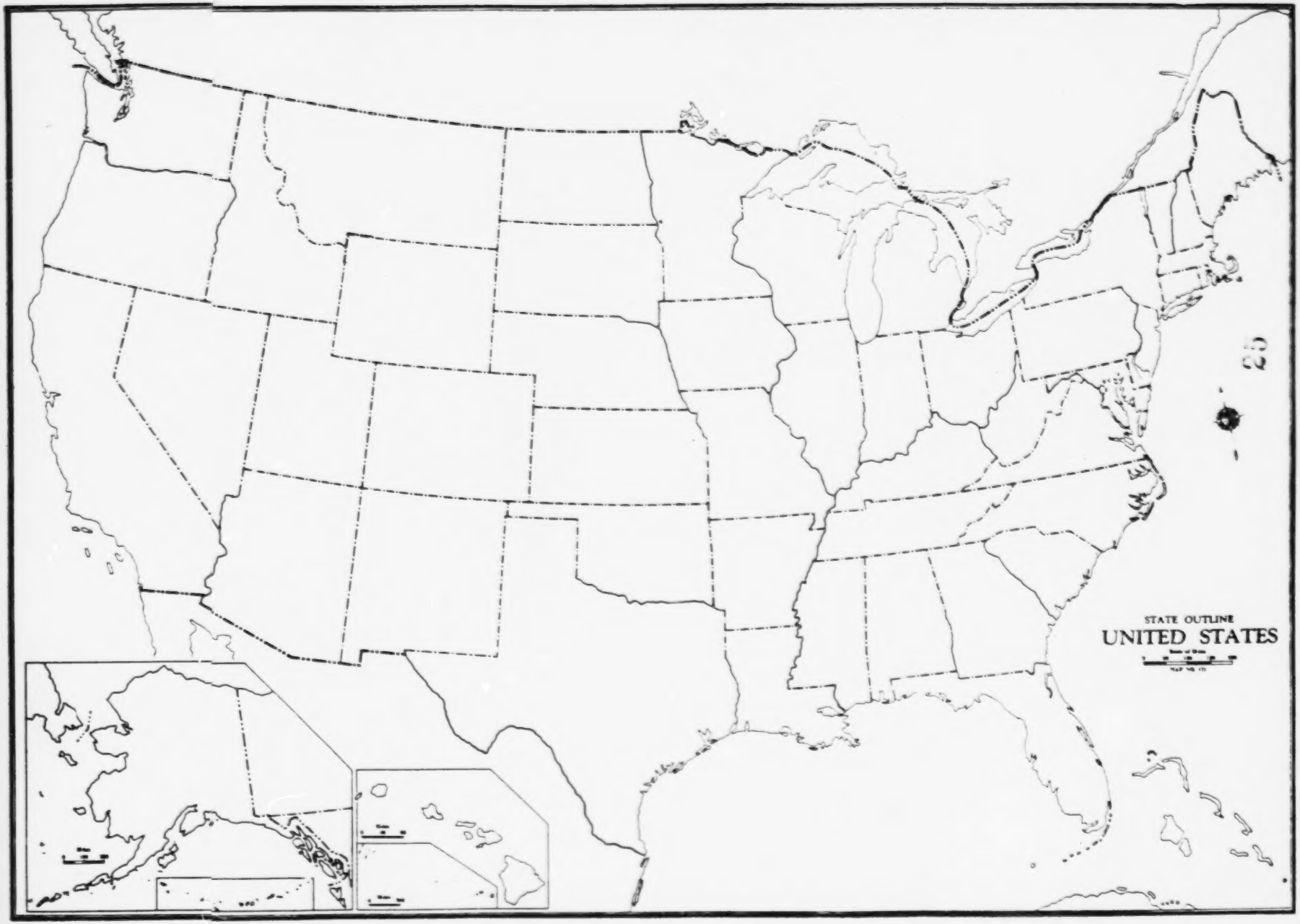
STATE OUTLINE
UNITED STATES

Glossary

aqueduct - artificial or man- made channel for water

botantist - a scientist who studies plants

Caribe Indians - native Indians of the Caribbean Islands

customs - habit, cultural or family practices

ethnic - of any basic division or group of mankind, as distinguished by customs, characteristics, language etc.

file - powder used in cooking

gumbo - Creole dish made from okra plant

historians - people who study history

okra - a tall plant with sticky green pods, used in soups, stews etc.

terraces - level place cut out of a hill

translucent - letting light pass through, semi- transparent

Other things to do:

Write a sentence for each of the words in the glossary. Share them with a classmate. Can they tell what the word means from reading your sentence?

Find a recipe for "gumbo".

Do a research report on a country mentioned in this book.

Make a model showing terrace farming.

Short Bibliography of Books and Materials for Teachers and Students

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Sellers, Charles Coleman. (1980) *Mr. Peale's Museum: Charles Wilson Peale and the First Popular Museum of Natural Science and Art*. New York: W.W. Norton & Company, Inc. p. 84.

B. About Tomatoes

Hendrickson, Robert. (1977) *The Great American Tomato Book: the One Complete Guide to Growing and Using Tomatoes Everywhere*. Garden City, New York: Doubleday and Co.

Krech, Inez M. (1981) *Tomatoes*. New York: Crown Publishers Inc. Many books on tomatoes are available through libraries and bookstores. Krech's book is a good example of a general book which could be used as a resource for teachers and students.

C. About Campbell's Soup

Fortune Magazine. November 1935. pp. 72+++. Includes many pictures of tomato production and the Campbell's Soup plant in Camden.

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